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CENTRAL FAX CENTER****JUN 19 2009**Shinji IMOTO et al., S.N. 10/563,214
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Amendments to the Specification

Please amend the paragraphs at page 4, line 2 through page 14, line 15, in the following manner:

~~In order to do so, it is necessary to have means~~ Means such as a sensor can be provided for accurately measuring a surface potential or a surface resistance of a recording medium, ~~[[which]] but such means causes complex of the apparatus to become more complex and finally causes a problem of an increase in the cost and power consumption.~~

DISCLOSURE OF THE INVENTION SUMMARY

~~It is a general object of the present invention to provide an improved and useful image forming apparatus in which the above-mentioned problems are eliminated.~~

~~A more specific object of the present invention is to provide~~ In an aspect of this disclosure, there is provided an image forming apparatus that can improve an accuracy of conveyance of a recording medium with a simple structure and prevent a reverse flow of mist so as to stably form a high-quality image.

~~In order to achieve the above-mentioned objects~~ In another aspect of this disclosure, there is provided according one aspect of the present invention an image forming apparatus comprising: a conveyance belt that conveys a recording medium by attracting the recording medium by an electrostatic force generated by electric charges applied thereto; a charger that applies electric charges to the conveyance belt; a recording head that discharges droplets of a recording liquid toward the recording medium being conveyed by the conveyance belt; and adjusting means for adjusting an amount of electric charges induced on a surface of the recording medium, wherein the adjusting means adjusts the amount of the electric charges on the surface of the recording medium, which has been conveyed to a recording position where the droplets of the recording liquid are discharged from the recording head toward the recording medium, in accordance with a resistance value of the recording medium.

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~~According to~~ In the above-mentioned image forming apparatus, since there is provided the adjusting means, which adjusts the amount of the electric charges on the surface of the recording medium, which has been conveyed to a recording position where the droplets of the recording liquid are discharged from the recording head toward the recording medium, in accordance with a resistance value of the recording medium, an accuracy of conveyance of the recording medium is improved, and a flight direction of the droplets of the recording liquid discharged from the recording head is prevented from being deflected due to an influence of the electric field generated by the electric charges on the recording medium and mist of the recording liquid is prevented from adhering to the recording head due to reverse flow of the mist, thereby enabling stably formation of a high-quality image.

In the above-mentioned image forming apparatus ~~according to the above-mentioned invention~~, the adjusting means may adjust the amount of the electric charges on the surface of the recording medium in accordance with a result of detection of a surface resistance of the recording medium. The adjusting means may adjust the amount of the electric charges on the surface of the recording medium in accordance with a result of detection of a volume resistance of the recording medium. The adjusting means may adjust the amount of the electric charges on the surface of the recording medium in accordance with a result of detection of environment temperature and humidity. The adjusting means may adjust the amount of the electric charges on the surface of the recording medium in accordance with externally given information regarding the resistance value of the recording medium.

Additionally, there is provided, according to another aspect of ~~the present invention~~ this disclosure, an image forming apparatus comprising: a conveyance belt that conveys a recording medium by attracting the recording medium by an electrostatic force generated by electric charges applied thereto; a charger that applies electric charges to the conveyance belt; a recording head that discharges droplets of a recording liquid toward the recording medium being conveyed by the conveyance belt; and adjusting means for adjusting an amount of electric charges induced on a surface of the recording medium, wherein the adjusting means adjusts the amount of

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the electric charges on the surface of the recording medium in accordance with a result of detection of a relative position between the recording medium and the charges applied to the conveyance belt.

~~According to~~ In the above-mentioned image forming apparatus, since there is provided the adjusting means, which adjusts the amount of the electric charges on the surface of the recording medium in accordance with a result of detection of a relative position between the recording medium and the charges applied to the conveyance belt, an accuracy of conveyance of the recording medium is improved, and a flight direction of the droplets of the recording liquid discharged from the recording head is prevented from being deflected due to an influence of the electric field generated by the electric charges on the recording medium and mist of the recording liquid is prevented from adhering to the recording head due to reverse flow of the mist, thereby enabling stably formation of a high-quality image.

Further, there is provided, according to another aspect of ~~the present invention~~ this disclosure, an image forming apparatus comprising: a conveyance belt that conveys a recording medium by attracting the recording medium by an electrostatic force generated by electric charges applied thereto; a charger that applies electric charges to the conveyance belt; a recording head that discharges droplets of a recording liquid toward the recording medium being conveyed by the conveyance belt; and adjusting means for adjusting an amount of electric charges induced on a surface of the recording medium, wherein the adjusting means adjusts the amount of the electric charges on the surface of the recording medium in accordance with a size of the droplets of the recording liquid discharged from the recording head.

~~According to~~ In the above-mentioned image forming apparatus, since there is provided the adjusting means, which adjusts the amount of the electric charges on the surface of the recording medium in accordance with a size of the droplets of the recording liquid discharged from the recording head, an accuracy of conveyance of the recording medium is improved, and a flight direction of the droplets of the recording liquid discharged from the recording head is prevented from being deflected due to an influence of the electric field generated by the electric charges on

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the recording medium and mist of the recording liquid is prevented from adhering to the recording head due to reverse flow of the mist, thereby enabling stably formation of a high-quality image.

In the above-mentioned image forming apparatus ~~according to the above-mentioned invention~~, the adjusting means may adjust the amount of the electric charges on the surface of the recording medium in accordance with externally given information recording a size of the droplets of the recording liquid.

Additionally, there is provided, according to another aspect of ~~the present invention~~ this disclosure, an image forming apparatus comprising: a conveyance belt that conveys a recording medium by attracting the recording medium by an electrostatic force generated by electric charges applied thereto; a charger that applies electric charges to the conveyance belt; a recording head that discharges droplets of a recording liquid toward the recording medium being conveyed by the conveyance belt; and adjusting means for adjusting an amount of electric charges induced on a surface of the recording medium, wherein the adjusting means adjusts the amount of the electric charges on the surface of the recording medium in accordance with a viscosity of the droplets of the recording liquid discharged from the recording head.

~~According to~~ In the above-mentioned image forming apparatus, since there is provided the adjusting means, which adjusts the amount of the electric charges on the surface of the recording medium in accordance with a viscosity of the droplets of the recording liquid discharged from the recording head, an accuracy of conveyance of the recording medium is improved, and a flight direction of the droplets of the recording liquid discharged from the recording head is prevented from being deflected due to an influence of the electric field generated by the electric charges on the recording medium and mist of the recording liquid is prevented from adhering to the recording head due to reverse flow of the mist, thereby enabling stably formation of a high-quality image.

In the above-mentioned image forming apparatus ~~according to the above-mentioned invention~~, the adjusting means may adjust the amount of the electric

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charges on the surface of the recording medium in accordance with a result of detection of an environment temperature.

Additionally, there is provided, according to another aspect of ~~the present invention~~ this disclosure, an image forming apparatus comprising: a conveyance belt that conveys a recording medium by attracting the recording medium by an electrostatic force generated by electric charges applied thereto; a charger that applies electric charges to the conveyance belt; a recording head that discharges droplets of a recording liquid toward the recording medium being conveyed by the conveyance belt; and adjusting means for adjusting an amount of electric charges induced on a surface of the recording medium, wherein the adjusting means adjusts the amount of the electric charges on the surface of the recording medium in accordance with at least two items including a resistance value of the recording medium, a result of detection of a relative position between the recording medium and the charges applied to the conveyance belt, a size of the droplets of the recording liquid discharged from the recording head and a viscosity of the droplets of the recording liquid discharged from the recording head.

~~According to~~ In the above-mentioned image forming apparatus, since there is provided the adjusting means, which adjusts the amount of the electric charges on the surface of the recording medium in accordance with at least two items including a resistance value of the recording medium, a result of detection of a relative position between the recording medium and the charges applied to the conveyance belt, a size of the droplets of the recording liquid discharged from the recording head and a viscosity of the droplets of the recording liquid discharged from the recording head, an accuracy of conveyance of the recording medium is improved, and a flight direction of the droplets of the recording liquid discharged from the recording head is prevented from being deflected due to an influence of the electric field generated by the electric charges on the recording medium and mist of the recording liquid is prevented from adhering to the recording head due to reverse flow of the mist, thereby enabling stably formation of a high-quality image.

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Further, there is provided, according to another aspect of ~~the present invention~~ this disclosure, an image forming apparatus configured and arranged to perform both-side printing, comprising: a conveyance belt that conveys a recording medium having a first surface and a second surface opposite to the first surface by attracting the recording medium by an electrostatic force generated by electric charges applied thereto; a charger that applies electric charges to the conveyance belt; a recording head that discharges droplets of a recording liquid toward the recording medium being conveyed by the conveyance belt; and adjusting means for adjusting an amount of electric charges induced on a surface of the recording medium, wherein the adjusting means adjusts the amount of the electric charges on the surface of the recording medium, which has been conveyed to a recording position where the droplets of the recording liquid are discharged from the recording head toward the recording medium, in accordance with a resistance value of the recording medium and a fact as to whether an image is being formed on the first surface to be printed first or the second surface printed subsequent to the first surface.

~~According to~~ In the above-mentioned image forming apparatus, since there is provided the adjusting means, which adjusts the amount of the electric charges on the surface of the recording medium, which has been conveyed to a recording position where the droplets of the recording liquid are discharged from the recording head toward the recording medium, in accordance with a resistance value of the recording medium and a fact as to whether an image is being formed on the first surface to be printed first or the second surface printed subsequent to the first surface, in both-side printing, an accuracy of conveyance of the recording medium is improved, and a flight direction of the droplets of the recording liquid discharged from the recording head is prevented from being deflected due to an influence of the electric field generated by the electric charges on the recording medium and mist of the recording liquid is prevented from adhering to the recording head due to reverse flow of the mist, thereby enabling stably formation of a high-quality image.

In the above-mentioned image forming apparatus ~~according to the above-mentioned invention~~, a resistance value of the second surface of the recording

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medium may be presumed in accordance with an amount of the recording liquid adhered onto the first surface of the recording medium. A resistance value of each predetermined area of the second surface of the recording medium may be presumed in accordance with an amount of the recording liquid adhered on each predetermined area of the first surface of the recording medium.

Please amend the paragraphs at page 15, lines 13-16, in the following manner:

Other ~~objects~~ aspects, features and advantages ~~of the present invention~~ will become more apparent from the following detailed description when read in conjunction with the accompanying drawings.